**Commonwealth of Kentucky**
**Natural Resources and Environmental Protection Cabinet**
**Department for Environmental Protection**
**Division for Air Quality**
**803 Schenkel Lane**
**Frankfort, Kentucky 40601**
**(502) 573-3382**

# AIR QUALITY PERMIT

**Permittee Name:** **Green River Steel Corporation**
**Mailing Address:** **4701 US 60 East, Owensboro, Kentucky 42303**

**is authorized to operate a steel manufacturing plant**

**Source Name:** **Green River Steel Corporation**
**Mailing Address:** **Same as above**

**Source Location:** **4701 US 60 East, Owensboro, Kentucky 42303**

**PERMIT TYPE:** **Federally-Enforceable Title V**
**Review Type:** **NSR**

**Permit Number:** **V-97-054**
**Log Number:** **F006**
**KYEIS ID #:** **077-0920-0008**
**AFS Plant ID:** **21-059-00008**
**FINDS Number:** **KYD062951801**
**SIC Code:** **3312**

**Region:** **HENDERSON-EVANSVILLE**
**County:** **Daviess**

**Issuance Date:**
**Expiration Date:**

**John E. Hornback, Director**
**Division for Air Quality**

**DEP7001 (1-97)**

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## SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application which was determined to be administratively and technically complete on May 15, 1997, the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This draft permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 50:035, Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. However, these provisions do not shield the source from violations of the applicable requirements being established and documented through other evidence, nor does it relieve the source from its obligation to comply with the underlying emission limits or other applicable requirements being monitored. The preamble to EPA's credible evidence rule specifically states that a permit cannot shield a source from enforcement based on evidence not specified in the permit.

# SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**01 (01) - 2 Electric Arc Furnaces(EAFs) and Baghouse Dust Handling equipment**
**Description:**
Two Swindell-Dresser electric arc furnaces with maximum capacities of 20 tons/hr each and the associated dust handling equipment for the MicroPul baghouse.
Construction commenced: 1952

**APPLICABLE REGULATIONS:**
401 KAR 61:075 - Steel plants and furnaces using existing electric arc furnaces.
401 KAR 63:020 - Potentially hazardous matter or toxic substance (State Origin).

**1. Operating Limitations:**

Steel production rate shall not exceed 180,000 tons/year total for 2 furnaces and 20 tons/hour for each furnace - Permit condition in permit O-83-36, imposed to comply with the NAAQ standards.

Power output for each EAF transformer shall not exceed 18 MVA - Permit condition in permit O-83-36, imposed to comply with the NAAQ standards.

The amperage of the fans used in exhausting the emissions to the baghouses, during operation of the hood to capture emissions from the furnace, shall equal or exceed the levels established during the latest performance test and approved by the Division.

The static pressure in the free space inside the EAFs shall not exceed, during the meltdown and refining period, the levels established during the latest performance test and approved by the Division. The pressure monitoring device shall have an accuracy of plus or minus 5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.

Compliance with the steel production, transformer power output, fan amperage, and EAF free space static pressure limits shall be demonstrated through monitoring and recordkeeping as specified below.

**2. Emission Limitations:**

Particulate emissions from the baghouse(s) shall not exceed 0.01 grains/dscf (23 mg/dscm) - 401 KAR 61:075 Section 3(1)(a).

Visible emissions from the baghouse(s) shall not exceed 3% opacity - 401 KAR 61:075 Section 3(1)(b)2.

Visible emissions from shop not captured to the baghouse(s) shall not exceed 20% opacity for more than 11 times as observed at 15 second intervals over a period of any 60 consecutive minutes - 401 KAR 61:075 Section 3(1)(c).

Visible emissions from the dust handling equipment of the baghouse shall not equal or exceed 10% opacity - 401 KAR 61:075 Section 3(2).

Particulate emissions rate shall be established for each operating scenario by the testing conducted on the source as specified below.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**3. Testing Requirements:**

A stack test shall be conducted for each operating scenario, within a year of issuance of this permit to determine compliance with the allowable particulate emissions rates, as listed in this permit. The owner or operator shall notify the Division of the performance test at least 30 days prior to the proposed test date and shall obtain approval from the Division for the procedures that will be used to determine compliance.

Method 5 shall be used for negative-pressure fabric filters and other types of control devices and Method 5D shall be used for positive-pressure fabric filters to determine compliance with the particulate matter concentration limits listed in the permit. The sampling time and sample volume for each run shall be at least 4 hours and 4 ½ dscm (160 dscf).

The concentration of particulate matter shall be determined using the following equation:

$$C_s = [\sum_{n=1}^{N} (C_s \ Q_s)_n] \ / \ \sum_{n=1}^{N} (Q_s)_n$$

where:

$C_s$ = concentration of particulate matter, mg/dscm (gr/dscf) as determined by Reference Method 5.

N = total number of control devices tested (n=2 for scenario 1 and n=1 for scenario 2)

$Q_s$ = volumetric flow rate of effluent gas stream in dscm/hr (dscf/hr) as determined by Reference Method 2.

$(C_sQ_s)_n$ or $(Q_s)_n$ = Value of the applicable parameter for each control device tested.

Method 9 shall be used to determine Compliance with the opacity limits for emissions from the baghouse and baghouse handling equipment listed in the permit.

Method 9 shall be used to determine Compliance with the opacity limits for emissions not captured to the baghouse, except for averaging time and number of observations which are specified in the emissions limit.

During any performance test no gaseous diluents shall be added to the effluent gas after the fabric in the control equipment, unless the amount of dilution is separately determined and considered in the determination of emissions.

All test runs performed to comply with requirements listed for this Emission Point shall be conducted concurrently, unless inclement weather interferes.

The latest performance test, approved by the Division, shall be used to establish the minimum control system fan amperage during all periods in which the hood is operated for the purpose of capturing emissions from the EAFs, and the maximum pressure in the free space inside the EAFs, during the meltdown and refining periods. These parameters shall be established using the same equipment, approved by the Division, that shall be used to demonstrate compliance with these values on a continuous basis.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**3. Testing Requirements: (continued)**

For the periods when EAF free space static pressure and the fan amperage are being established, the emissions exiting the melt shop shall not exceed 20% opacity for more than 11 times as observed at 15 second intervals over a period of any 60 consecutive minutes. Reference Method 9 shall be used in determining opacity in this paragraph, except for averaging time and number of observations.

The owner or operator may petition the Division to approve further testing of particulate emissions from the baghouses whenever the owner or operator can demonstrate to the Division's satisfaction that the EAF operating conditions upon which the parameters were established are no longer applicable. Any such petition shall be made at least 30 days prior to the proposed performance test and shall include all the procedures that will be used to determine compliance.

**4. Specific Monitoring Requirements:**

Opacity monitoring, made by observations of the visible emissions from the baghouse, shall be performed by a certified visible emissions observer as follows:

- Visible emission observations shall be conducted at least once per day, for each scenario that the furnaces are operated under that day, during on-line operation of the furnaces. If possible this or additional visible emissions observations shall be conducted during operation of dust handling equipment of the baghouse.
- These observations shall be for at least three 6-minute periods and shall be recorded for each point(s) where visible emissions are observed.
- Where it is possible to determine that a number of these visible emission sites relate to only one incident of visible emissions, one set of three 6-minute observations will be required. In this case, Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emission observed during a single incident.

In the absence of a certified visible emissions observer a qualitative check for opacity may be performed. A qualitative check shall include maintenance of a daily log noting the following:

- Whether any air emissions (except for water vapor) were visible from any source of emissions.
- The location of each point where emissions were visible; and
- Whether the visible emissions were normal for the process.

If the emissions from this emission point are perceived or believed to exceed the applicable opacity standard, the source shall conduct a Method 9 visible emissions test as stated above. In addition to the qualitative analysis, a semi-annual Method 9 visible emissions test shall be conducted for this emission point and compared against a simultaneous qualitative measurement as performed daily.

Monitoring of the furnace operation shall be performed through checks, on a once-per-shift basis, of the furnace static pressure, control system fan amperes and damper positions. The data gathered shall be compared against the values established during the latest performance test, for the corresponding operating scenario, and approved by the Division.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Steel production rate and the transformer power outputs shall be monitored to ensure compliance with the operating limitations listed above.

**5. Specific Record Keeping Requirements:**

Records shall be maintained of the daily opacity measurements as required by this permit. Separate records shall be maintained of any opacity measurements that are in excess of the emission limits specified in this permit.

Records shall be maintained of the current operating scenario, heat (batch) times, including start and stop times, time and duration of each charge and tap, and a log of process operations, including periods of no operation. In addition, a log of baghouse inspections shall be maintained at the source indicating date of inspection and condition of the baghouses.

Records shall be maintained of the control system fan amperage and damper positions, during all periods the hood is operated for the purpose of capturing emissions from the EAFs.

Records shall be maintained of the pressure in the free space inside the EAFs, for this Emission Point. The pressure shall be recorded as 15 minute integrated averages.

Records shall be maintained of the monthly steel production, hours of operation, and transformer power output for each furnace.

All records shall be maintained at the source for a period of five years.

**6. Specific Reporting Requirements:**

The record of opacity measurements that are in excess of the emission limits specified in this permit shall be reported to the Division semiannually. In addition, the owner or operator shall certify, on a yearly basis, that an opacity measurement was conducted each day the emission point was in operation and that the emission point was in compliance with, or in violation of, the applicable visible emission standard.

Each instance of operation of the furnace at free space static pressures in excess of the value established in the stack test and approved by the Division, shall be reported to the Division as soon as possible per General Condition E 6 of this permit. Each instance of operation of the furnace at control equipment fan amperage below the value established in the stack test and approved by the Division shall be reported to the Division as soon as possible per General Condition E 6 of this permit.

**7. Specific Control Equipment Operating Conditions:**

The MicroPul baghouse shall be operated at all times the furnaces are in operation. The baghouse shall be inspected regularly and operated so as to achieve its design control efficiency of 98%.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**02 (02) - Traveling Grinders:**
**Description:**
Three G & B #3000 traveling grinder with a total processing rate of 40 tons of steel/hour exhausting to a MicroPul baghouse.

**02a 1 G & B Traveling Grinder**
Construction commenced: July 28, 1989.

**02b 2 G & B Traveling Grinder**
Construction commenced: November, 1996.

**APPLICABLE REGULATIONS:**
401 KAR 59:010 - New process operations.

**1. Operating Limitations:**

Steel processing rate for the three grinders shall not exceed 145,000 tons/year and 40 tons/hour - Permit condition in permit O-83-36, imposed to comply with the NAAQ standards.

**2. Emission Limitations:**

Particulate emissions shall not exceed 31.23 lbs/hr - 401 KAR 59:010, New process operations

Visible emissions shall not equal or exceed 20% opacity.

The following formulas will be used in calculating the particulate emissions:

Average Particulate Emissions = Steel processing rate (in tons/month) x Controlled Steel Rate (lbs/hour) Particulate Emission Factor (lbs/tons of steel processed)/ hours of operation (hours/month)

The controlled steel particulate emission factor used shall be 0.075 lbs/ton of steel processed. This emission factor shall be replaced by the number calculated whenever an emissions test or other modification, approved by the Division, is carried out for this emission point. Records of any such change in the emission factor used shall be maintained at the source.

Opacity shall be determined by Reference Method 9 of Appendix A to 40 CFR 60, filed by reference in 401 KAR 50:015.

**3. Testing Requirements:**

If the daily observations of the visible emissions from this emission point are found to be in excess of the limits prescribed above for more than 20 days in any six month period, a stack test shall be conducted to determine compliance with the allowable particulate emissions rates, as listed in this permit, within three months of the last exceedance. The owner or operator shall notify the Division of the performance test at least 30 days prior to the proposed test date and shall obtain approval from the Division for the procedures that will be used to determine compliance. Method 5 shall be used to determine the particulate emissions.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**4. Specific Monitoring Requirements:**

Opacity monitoring shall be performed by a certified visible emissions observer at least once per day during shot blasting operations. The particulate emissions and steel processing rates shall be monitored to ensure compliance with the emission limits listed above.

**5. Specific Record Keeping Requirements:**

Records shall be maintained of the daily opacity measurements. Records shall also be maintained of the last 20 opacity measurements that are in excess of the emission limits specified in this permit

Records of the calculated particulate emission rates, the steel shot usage rate, and the hours of operation shall be maintained at the source. In addition, a log of the visual inspection of the fabric filter shall be maintained at the source indicating the date of each inspection and condition of the filter.

These records shall be maintained at the plant for a period of at least five years.

**6. Specific Reporting Requirements:**

All opacity measurements and particulate emissions rates that are in excess of the emission limits specified in this permit shall be reported to the Division as soon as possible per Section E 6 of this permit. In addition, the owner or operator shall certify, annually, whether the opacity measurement was conducted continuously or intermittently and if intermittent, the frequency of such measurements.

**7. Specific Control Equipment Operating Conditions:**

The MicroPul baghouse shall be operated at all times the grinders are in operation. The baghouse shall be inspected regularly and operated so as to achieve its design overall efficiency of 95%.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**04 (04) - Acid Etch House:**

**Description:**

Etch treatment unit using hydrochloric acid to etch steel with a maximum design HCl makeup rate of 400 lbs/hour and a Ceilcote scrubber with an efficiency of 98%.
Construction commenced: October 1, 1989.

**APPLICABLE REGULATIONS:**

401 KAR 59:010 - New process operations.

**1. Operating Limitations:**

None

**2. Emission Limitations:**

Particulate emissions rate shall not exceed 2.54 lbs/hr - 401 KAR 59:010.
Visible emissions from this emission point shall not equal or exceed 20% opacity - 401 KAR 59:010.

The following formulas will be used in calculating the particulate emissions:
Average Hourly Particulate = Monthly HCl usage Rate (in tons/month) x Controlled HCl Emission Rate (in lbs/hr) Emission Factor (in lbs/ton of steel produced) / hours of operation (hrs/month)

The controlled HCl emission factor used shall be 0.0004 lbs/ton of steel produced. These emission factors shall be replaced by the numbers calculated whenever an emissions test or other change, approved by the Division, is carried out for this emission point. Records of any such change in the emission factors used shall be maintained at the source.

**3. Testing Requirements:**

None.

**4. Specific Monitoring Requirements:**

Opacity monitoring shall be performed by a certified visible emissions observer at least once per day during etching operations.
In addition to the qualitative analysis, a semi-annual Method 9 visible emissions test shall be conducted for this emission point and compared against a simultaneous qualitative measurement as performed daily.
The particulate emissions and steel processing rates, as well as the hours of operation, shall be monitored to ensure compliance with the emission limits listed above.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**5. Specific Record Keeping Requirements:**

Records shall be maintained of the daily opacity measurements as required by this permit. Separate records shall also be maintained of any opacity measurements that are in excess of the emission limits specified in this permit

Records shall also be maintained of the monthly steel processing rates and hours of operation of this emission point. In addition, a log of inspection of the control equipment shall be maintained at the source indicating the date of each inspection and parameters checked. These records shall be maintained at the source for a period of at least five years.

**6. Specific Reporting Requirements:**

All opacity measurements that are in excess of the emission limits specified in this permit shall be reported to the Division as soon as possible per General Condition E 6 of this permit. In addition, the owner or operator shall certify, on a yearly basis, that an opacity measurement was conducted each day the emission point was in operation and that the emission point was in compliance with, or in violation of, the applicable visible emission standard.

**7. Specific Control Equipment Operating Conditions:**

The Ceilcote scrubber shall be inspected regularly and maintained so as to be able to achieve a HCl control efficiency of 95%. The scrubber shall be operated at all times that the acid etching is in operation.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**05 (6) Vacuum Degassing Boiler:**

**Description:**

A Combustion Engineering 400K-4 Type A natural gas fired boiler with a maximum heat input of 58 mmBTU per hour of natural gas.
Construction commenced: November 16, 1972.

**APPLICABLE REGULATIONS:**

401 KAR 59:015 - New indirect heat exchangers.

**1. Operating Limitations:**

Fuel used shall be natural gas only.

**2. Emission Limitations:**

Particulate emissions shall not exceed 0.37 lbs/mmBTU - 401 KAR 59:015, New indirect heat exchangers.
Sulfur dioxide emissions shall not exceed 4.81 lbs/mmBTU - 401 KAR 59:015, New indirect heat exchangers.
Visible emissions shall not equal or exceed 20% opacity except for emissions during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations, and that a maximum of 40% opacity shall be permissible, for not more than 6 consecutive minutes in any 60 consecutive minutes, during cleaning the fire box or blowing soot.

Compliance with the particulate emissions limit listed above shall be determined by the latest stack test performed on the emission unit as per Reference Method 5, and approved by the Division. In the absence of any stack test data emission factor data from the Compilation of Air Pollution Emission Factors, document AP-42 published by the EPA OAQPS, may be used.
Compliance with the sulfur dioxide emissions limit listed above shall be determined by the latest stack test performed on the emission unit as per Reference Method 6, and approved by the Division. In the absence of any stack test data, emission factor data from the Compilation of Air Pollution Emission Factors, document AP-42 published by the EPA OAQPS, may be used.
Opacity shall be determined by Reference Method 9 of Appendix A to 40 CFR 60, filed by reference in 401 KAR 50:015.

**3. Testing Requirements:**

None.

**4. Specific Monitoring Requirements:**

Opacity monitoring shall be performed by a certified visible emissions observer at least once a day during boiler operations.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**5. Specific Record Keeping Requirements:**

Records shall be maintained of the daily opacity measurements as required by this permit. Separate records shall also be maintained of any opacity measurements that are in excess of the emission limits specified in this permit.

Records shall be maintained of the monthly natural gas usage in the boiler. Records shall also be maintained of the latest natural gas particulate and sulfur dioxide emissions factors used at this emission point, determined as specified above.

These records shall be maintained at the source for a period of at least five years.

**6. Specific Reporting Requirements:**

All opacity measurements that are in excess of the emission limits specified in this permit shall be reported to the Division as soon as possible per General Condition E 6 of this permit. In addition, the owner or operator shall certify, on a yearly basis, that an opacity measurement was conducted each day the emission point was in operation and that the emission point was in compliance with, or in violation of, the applicable visible emission standard.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**06 (06)** - **Heat Soak Billets**

**Description:**

A direct fired natural gas fuel furnace consisting of 14 pit and 11 carbottom furnaces with a total fuel input capacity of 440 mmBTU/hour.
Construction commenced: July 1, 1969.

**APPLICABLE REGULATIONS:**

401 KAR 61:020 - Existing process operations.

**1. Operating Limitations:**

None.

**2. Emission Limitations:**

Visible emissions shall not exceed 40% opacity.
Opacity shall be determined by Reference Method 9 of Appendix A to 40 CFR 60, filed by reference in 401 KAR 50:015.

**3. Testing Requirements:**

None.

**4. Specific Monitoring Requirements:**

Opacity monitoring shall be performed by a certified visible emissions observer at least once per day during furnace operations.

**5. Specific Record Keeping Requirements:**

Records shall be maintained of the daily opacity measurements as required by this permit. Separate records shall also be maintained of any opacity measurements that are in excess of the emission limits specified in this permit
These records shall be maintained at the source for a period of at least five years.

**6. Specific Reporting Requirements:**

All opacity measurements that are in excess of the emission limits specified in this permit shall be reported to the Division as soon as possible per General Condition E 6 of this permit. In addition, the owner or operator shall certify, on a yearly basis, that an opacity measurement was conducted each day the emission point was in operation and that the emission point was in compliance with, or in violation of, the applicable visible emission standard.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**10 (10)** - **Austenitizing Furnace**

**Description:**

1239 Bickely Austenitizing furnace with a design capacity of 5.5 tons of steel bars/ hour and a natural gas usage rate of 3.4 mmBTU/hr..

Construction commenced: December 27, 1989.

**APPLICABLE REGULATIONS:**

401 KAR 59:010 - New process operation.

**1. Operating Limitations:**

None.

**2. Emission Limitations:**

Particulate emissions shall not exceed 4 tons per 12 consecutive month period - Self imposed to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration..

Visible emissions shall not exceed 20% opacity.

The following formulas will be used in calculating the particulate emissions:

Particulate Emission = Natural Gas Usage Rate (in mm cu. ft./month) x Natural Gas Rate (in lbs/month) Particulate Emission Factor (in lbs/mm cu. ft.)] / hours of operation (hrs/month)

The natural gas particulate emission factor used shall be 5 lbs/mm cu. ft.. This emission factor shall be replaced by the number calculated whenever an emissions test or other change, approved by the Division, is carried out for this emission point. Records of any such change in the emission factor used shall be maintained at the source.

Opacity shall be determined by Reference Method 9 of Appendix A to 40 CFR 60, filed by reference in 401 KAR 50:015.

**3. Testing Requirements:**

None.

**4. Specific Monitoring Requirements:**

Opacity monitoring shall be performed by a certified visible emissions observer at least once per day during furnace operations. The particulate emissions and natural gas usage rates, as well as the hours of operation, shall be monitored to ensure compliance with the emission limits listed above.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**5. Specific Record Keeping Requirements:**

Records shall be maintained of the daily opacity measurements as required by this permit. Separate records shall also be maintained of any opacity measurements that are in excess of the emission limits specified in this permit

Records shall also be maintained of the particulate emissions, natural gas usage rates, and hours of operation of this emission point.

These records shall be maintained at the source for a period of at least five years.

**6. Specific Reporting Requirements:**

All opacity measurements that are in excess of the emission limits specified in this permit shall be reported to the Division as soon as possible per General Condition E 6 of this permit. In addition, the owner or operator shall certify, on a yearly basis, that an opacity measurement was conducted each day the emission point was in operation and that the emission point was in compliance with, or in violation of, the applicable visible emission standard.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**11 (11)** - **Tempering Furnace**

**Description:**

1239 Bickely Tempering furnace with a design capacity of 5.5 tons of steel bars/ hour and a natural gas usage rate of 2.8 mmBTU/hr..

Construction commenced: December 27, 1989.

**APPLICABLE REGULATIONS:**

401 KAR 59:010 - New process operation.

**1. Operating Limitations:**

None.

**2. Emission Limitations:**

Particulate emissions shall not exceed 11 tons per 12 consecutive month period - Self imposed to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration..

Visible emissions shall not exceed 20% opacity.

The following formulas will be used in calculating the particulate emissions:

Particulate Emission = Natural Gas Usage Rate (in mm cu. ft./month) x Natural Gas Rate (in lbs/month) Particulate Emission Factor (in lbs/mm cu. ft.)] / hours of operation (hrs/month)

The natural gas particulate emission factor used shall be 5 lbs/mm cu. ft.. This emission factor shall be replaced by the number calculated whenever an emissions test or other change, approved by the Division, is carried out for this emission point. Records of any such change in the emission factor used shall be maintained at the source.

Opacity shall be determined by Reference Method 9 of Appendix A to 40 CFR 60, filed by reference in 401 KAR 50:015.

**3. Testing Requirements:**

None.

**4. Specific Monitoring Requirements:**

Opacity monitoring shall be performed by a certified visible emissions observer at least once per day during furnace operations. The particulate emissions and natural gas usage rates, as well as the hours of operation, shall be monitored to ensure compliance with the emission limits listed above.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**5. Specific Record Keeping Requirements:**

Records shall be maintained of the daily opacity measurements as required by this permit. Separate records shall also be maintained of any opacity measurements that are in excess of the emission limits specified in this permit

Records shall also be maintained of the particulate emissions, natural gas usage rates, and hours of operation of this emission point.

These records shall be maintained at the source for a period of at least five years.

**6. Specific Reporting Requirements:**

All opacity measurements that are in excess of the emission limits specified in this permit shall be reported to the Division as soon as possible per General Condition E 6 of this permit. In addition, the owner or operator shall certify, on a yearly basis, that an opacity measurement was conducted each day the emission point was in operation and that the emission point was in compliance with, or in violation of, the applicable visible emission standard.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**12 (12)** - **Austenitizing Furnace**

**Description:**

1981 Bickely Austenitizing furnace with a design capacity of 6.5 tons of steel bars/ hour and a natural gas usage rate of 8.53 mmBTU/hr..

Construction commenced: August 29, 1990.

**APPLICABLE REGULATIONS:**

401 KAR 59:010 - New process operation.

**1. Operating Limitations:**

None.

**2. Emission Limitations:**

Particulate emissions shall not exceed 4 tons per 12 consecutive month period - Self imposed to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration..

Visible emissions shall not exceed 20% opacity.

The following formulas will be used in calculating the particulate emissions:

Particulate Emission = Natural Gas Usage Rate (in mm cu. ft./month) x Natural Gas Rate (in lbs/month) Particulate Emission Factor (in lbs/mm cu. ft.)] / hours of operation (hrs/month)

The natural gas particulate emission factor used shall be 5 lbs/mm cu. ft.. This emission factor shall be replaced by the number calculated whenever an emissions test or other change, approved by the Division, is carried out for this emission point. Records of any such change in the emission factor used shall be maintained at the source.

Opacity shall be determined by Reference Method 9 of Appendix A to 40 CFR 60, filed by reference in 401 KAR 50:015.

**3. Testing Requirements:**

None.

**4. Specific Monitoring Requirements:**

Opacity monitoring shall be performed by a certified visible emissions observer at least once per day during furnace operations. The particulate emissions and natural gas usage rates, as well as the hours of operation, shall be monitored to ensure compliance with the emission limits listed above.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**5. Specific Record Keeping Requirements:**

Records shall be maintained of the daily opacity measurements as required by this permit. Separate records shall also be maintained of any opacity measurements that are in excess of the emission limits specified in this permit

Records shall also be maintained of the particulate emissions, natural gas usage rates, and hours of operation of this emission point.

These records shall be maintained at the source for a period of at least five years.

**6. Specific Reporting Requirements:**

All opacity measurements that are in excess of the emission limits specified in this permit shall be reported to the Division as soon as possible per General Condition E 6 of this permit. In addition, the owner or operator shall certify, on a yearly basis, that an opacity measurement was conducted each day the emission point was in operation and that the emission point was in compliance with, or in violation of, the applicable visible emission standard.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**13 (13)** - **Tempering Furnace**

**Description:**

1981 Bickely Tempering furnace with a design capacity of 6.5 tons of steel bars/ hour and a natural gas usage rate of 4.04 mmBTU/hr..

Construction commenced: August 29, 1990.

**APPLICABLE REGULATIONS:**

401 KAR 59:010 - New process operation.

**1. Operating Limitations:**

None.

**2. Emission Limitations:**

Particulate emissions shall not exceed 11 tons per 12 consecutive month period - Self imposed to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration..

Visible emissions shall not exceed 20% opacity.

The following formulas will be used in calculating the particulate emissions:

Particulate Emission = Natural Gas Usage Rate (in mm cu. ft./month) x Natural Gas Rate (in lbs/month) Particulate Emission Factor (in lbs/mm cu. ft.)] / hours of operation (hrs/month)

The natural gas particulate emission factor used shall be 5 lbs/mm cu. ft.. This emission factor shall be replaced by the number calculated whenever an emissions test or other change, approved by the Division, is carried out for this emission point. Records of any such change in the emission factor used shall be maintained at the source.

Opacity shall be determined by Reference Method 9 of Appendix A to 40 CFR 60, filed by reference in 401 KAR 50:015.

**3. Testing Requirements:**

None.

**4. Specific Monitoring Requirements:**

Opacity monitoring shall be performed by a certified visible emissions observer at least once per day during furnace operations. The particulate emissions and natural gas usage rates, as well as the hours of operation, shall be monitored to ensure compliance with the emission limits listed above.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**5. Specific Record Keeping Requirements:**

Records shall be maintained of the daily opacity measurements as required by this permit. Separate records shall also be maintained of any opacity measurements that are in excess of the emission limits specified in this permit

Records shall also be maintained of the particulate emissions, natural gas usage rates, and hours of operation of this emission point.

These records shall be maintained at the source for a period of at least five years.

**6. Specific Reporting Requirements:**

All opacity measurements that are in excess of the emission limits specified in this permit shall be reported to the Division as soon as possible per General Condition E 6 of this permit. In addition, the owner or operator shall certify, on a yearly basis, that an opacity measurement was conducted each day the emission point was in operation and that the emission point was in compliance with, or in violation of, the applicable visible emission standard.

## SECTION B - EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**14 (-)** Haul Roads: Various paved and unpaved road within the plant boundaries used to transport equipment, material, personnel etc.

**APPLICABLE REGULATIONS:**
401 KAR 63:010 - Fugitive emissions.

**1. Operating Limitations:**
None.

**2. Emission Limitations:**
None.

**3. Testing Requirements:**
None.

**4. Specific Monitoring Requirements:**
None.

**5. Specific Record Keeping Requirements:**
Records of the times the haul roads are watered shall be maintained at the source.

**6. Specific Reporting Requirements:**
None.

## SECTION C - INSIGNIFICANT ACTIVITIES

**The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4).**

| | Description | Regulation |
|---|---|---|
| 1. | Solvent parts washers (2) | Generally applicable regulations. |
| 2. | No. 2 fuel oil storage tanks (3) | Generally applicable regulations. |
| 3. | Rolling mills | Generally applicable regulations & 401 KAR 61:020 - Existing process operations. |
| 4. | Wastewater treatment facility | Generally applicable regulations. |
| 5. | Steel scrap unloading | Generally applicable regulations & 401 KAR 61:020 - Existing process operations. |
| 6. | Product marking with aerosol spray cans | Generally applicable regulations & 401 KAR 61:020 - Existing process operations. |
| 7. | Steel scrap yard - oxyacetylene cutting | Generally applicable regulations & 401 KAR 61:020 - Existing process operations. |
| 8. | Mold repair grinding | Generally applicable regulations & 401 KAR 59:010 - New process operations. |
| 9. | Rinse tanks in acid etch house | Generally applicable regulations & 401 KAR 59:010 - New process operations. |
| 10. | Ladle natural gas preheaters with #2 fuel oil backup (2 - 0.32 mmBTU/hr each) | Generally applicable regulations & 401 KAR 59:010 - New process operations. |

## SECTION D - CONTROL EQUIPMENT CONDITIONS

1. Pursuant to 401 KAR 50:012, Section 1(1) and 401 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the cabinet which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

## SECTION E - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a) Date, place as defined in this permit, and time of sampling or measurements.
   b) Analyses performance dates;
   c) Company or entity that performed analyses;
   d) Analytical techniques or methods used;
   e) Analyses results; and
   f) Operating conditions during time of sampling or measurement;

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained at the source authorized by this permit for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality.

3. The permittee shall allow the Cabinet or authorized representatives to perform the following:
   a) Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
   b) Have access to and copy, at reasonable times, any records required by the permit:
      I) During normal office hours, and
      ii) During periods of emergency when prompt access to records is essential to proper assessment by the Cabinet;
   c) Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
      I) During all hours of operation at the source,
      ii) For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii) During an emergency; and
   d) Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
      I) During all hours of operation at the source,
      ii) For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii) During an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

## SECTION E - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

5. Records of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be reported to the Division's Florence Regional Office no later than the six-month anniversary date of this permit and every six months thereafter during the life of this permit, unless otherwise stated in this permit. Data from the continuous emission and opacity monitors shall be reported to the Director in accordance with the requirements of Regulation 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to Section 6(1) of Regulation 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.

6. In accordance with Regulation 401 KAR 50:055, Section 1, the owner or operator shall notify the Division for Air Quality's Florence Regional Office by telephone as promptly as possible any deviation from permit requirements, including those due to malfunctions, unplanned shutdowns, ensuing startups, or upset conditions. Pursuant to Regulation 401 KAR 50:035, Section 7(1)(e), the notification shall describe the probable cause of the deviations and corrective actions or preventive measures taken.

7. The permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date to the Division for Air Quality's Florence Regional Office and the U.S. EPA in accordance with the following requirements:
   a) Identification of each term or condition of the permit that is the basis of the certification;
   b) The compliance status regarding each term or condition of the permit;
   c) Whether compliance was continuous or intermittent; and
   d) The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1)(c),(d), and (e).
   e) Other facts the Division may require to determine the compliance status of the source; and
   f) The certification shall be postmarked by the thirtieth (30th) day following the applicable permit issuance anniversary date.

8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall report all information necessary to determine its subject emissions.

9. Pursuant to section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance tests shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.

## SECTION F - GENERAL CONDITIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be (a) violation(s) of state regulation 401 KAR 50:035, Permits, Section 7(3)(d) and Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 50:035, Section 12(2)(c);
   b) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.;
   c) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish to the Division, in writing, information that the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit.

5. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit.

6. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance.

## SECTION F - GENERAL CONDITIONS (CONTINUED)

7. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.

8. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6).

9. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance.

10. This permit shall not convey property rights or exclusive privileges.

11. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.

12. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

14. Permit Shield: Except as provided in 401 KAR 50:035, compliance by the affected facilities listed herein with the conditions of this permit shall be deemed compliance with the specially identified applicable requirements as of the date of issuance of this permit.

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield. shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division.

## SECTION F - GENERAL CONDITIONS (CONTINUED)

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

(d) Compliance Certification Requirements

Pursuant to Section VII 2.2.(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:0016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

(e) Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
   i) An emergency occurred and the permittee can identify the cause of the emergency;
   ii) The permitted facility was at the time being properly operated;
   iii) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
   iv) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of 401 KAR 50:035, Permits, Section 7(1)(e), and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.

## SECTION F - GENERAL CONDITIONS (CONTINUED)

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement.

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof.

(g) Risk Management Provisions

1. The permittee shall comply with all requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall:

   a. Submit a Risk Management Plan and comply with the Risk Management Program by June 21, 1999 or a latter date specified by the U.S.EPA.

   b. Submit additional relevant information if requested by the Division or U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
   e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.